



Element Materials Technology - Fort Wayne
328 Ley Rd.
Fort Wayne, IN 46825
TEL: (260) 424-1622 FAX: (260) 424-9124
Website: www.element.com

July 17, 2021

Henry Padilla
East Chicago Sanitary District
5201 Indianapolis Blvd
East Chicago, IN 46312
TEL: 219 391 8466
FAX: 219 391 8254

RE: S-901

Order No.: 21051022

Dear Henry Padilla:

Element Materials Technology - Fort Wayne received 2 sample(s) on 5/11/2021 for the analyses presented in the following report.

In accordance with your instructions, a laboratory of Element Materials Technology Fort Wayne LLC either conducted or subcontracted these analyses. Subcontracted analyses will be identified in an accompanying case narrative and any associated report(s) will be attached in full. Unless otherwise noted in the case narrative, all analyses were conducted using approved methodologies. Reported results relate only to the items tested.

Estimated uncertainty is available upon request. This report shall not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.
Sincerely,

A handwritten signature in black ink that reads 'Don Ellis II'.

Don Ellis II
Project Manager
328 Ley Rd.
Fort Wayne, IN 46825



Element Materials Technology - Fort Wayne
328 Ley Rd.
Fort Wayne, IN 46825
TEL: (260) 424-1622 FAX: (260) 424-9124
Website: www.element.com

Case Narrative

WO#: 21051022

Date: 7/17/2021

CLIENT: East Chicago Sanitary District

Project: S-901

The Cyanide 1677 testing was subcontracted to Eurofins Pittsburgh PA. Their report is attached in its entirety.

The 625 testing was subcontracted to Summit Environmental Technologies. Their report is attached in its entirety. The results for the 625 analysis are "U" qualified indicating that the analytes were not detected above the MDL. They are reported as less than the PQL.

The report was revised to correct an error in the phenol calibration calculation. The changes have been reviewed by our Quality Manager to ensure validity.



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Website: www.element.com

Analytical Report

(continuous)

WO#: 21051022

Date Reported 7/17/2021

CLIENT: East Chicago Sanitary District

Lab Order: 21051022

Project: S-901

Lab ID: 21051022-001

Collection Date: 5/10/2021 8:40:00 AM

Client Sample ID: #901

Matrix: WASTEWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

OIL AND GREASE, TOTAL

E1664

Analyst: SMB

Oil & Grease, Total	116	5.0	*	mg/L	1	5/13/2021 4:52:20 PM
---------------------	-----	-----	---	------	---	----------------------

OIL AND GREASE, PETROLEUM HYDROCARBONS

E1664

Analyst: ANS

Oil & Grease, Petroleum	85.8	5.0		mg/L	1	5/17/2021 10:00:00 PM
-------------------------	------	-----	--	------	---	-----------------------

Qualifiers:

*	Value exceeds Maximum Contaminant Level	H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
PL	Permit Limit	PQL	Practical Quantitation Limit
RL	Reporting Detection Limit		



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Analytical Report

(continuous)

WO#: 21051022

Date Reported 7/17/2021

CLIENT: East Chicago Sanitary District

Lab Order: 21051022

Project: S-901

Lab ID: 21051022-002

Collection Date: 5/10/2021 8:40:00 AM

Client Sample ID: #901

Matrix: WASTEWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FLUORIDE					E300.0	Analyst: HNN
Fluoride	8.9	1.0	*	mg/L	10	5/12/2021 10:22:01 PM
CHEMICAL OXYGEN DEMAND					M5220 D	Analyst: NMB
Chemical Oxygen Demand	1,700	50.0		mg/L	5	5/13/2021 8:14:00 AM
AMMONIA AS N					E350.1	Analyst: AJC
Nitrogen, Ammonia (As N)	54.8	1.00		mg/L	10	5/12/2021 9:28:00 AM
PHENOLICS IN WASTEWATER					E420.1	Analyst: ANS
Phenolics, Total Recoverable	0.285	0.250		mg/L	10	5/12/2021 12:20:00 PM
TOTAL PHOSPHORUS					M4500-P F	Analyst: CDS
Total Phosphorus	0.780	0.050		mg/L	1	5/13/2021 3:34:00 PM
TOTAL SUSPENDED SOLIDS					M2540 D	Analyst: NMB
Suspended Solids (Residue, Non-Filterable)	360	80		mg/L	1	5/16/2021 11:58:00 AM
MERCURY					E245.1	Analyst: FJR
Mercury	0.00054	0.00010		mg/L	1	5/17/2021 12:37:38 PM
METALS IN WATER BY ICP-MS, TOTAL					E200.8	Analyst: FJR
Arsenic	0.00914	0.00020		mg/L	1	5/14/2021 1:49:46 PM
Chromium	0.0112	0.00040		mg/L	1	5/14/2021 1:49:46 PM
Cobalt	0.00336	0.00010		mg/L	1	5/14/2021 1:49:46 PM
Copper	0.0154	0.00020		mg/L	1	5/14/2021 1:49:46 PM
Lead	0.00314	0.00020		mg/L	1	5/14/2021 1:49:46 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
M Manual Integration used to determine area response
PL Permit Limit
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit



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Analytical Report

(continuous)

WO#: 21051022

Date Reported 7/17/2021

CLIENT: East Chicago Sanitary District

Lab Order: 21051022

Project: S-901

METALS IN WATER BY ICP-MS, TOTAL

E200.8

Analyst: FJR

Molybdenum	0.0684	0.00020	mg/L	1	5/14/2021 1:49:46 PM
Nickel	0.0238	0.00100	mg/L	1	5/14/2021 1:49:46 PM
Tin	< 0.00500	0.00500	mg/L	1	5/14/2021 1:49:46 PM
Zinc	0.274	0.00400	mg/L	10	5/19/2021 11:30:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
PL	Permit Limit	PQL	Practical Quantitation Limit
RL	Reporting Detection Limit		

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058


Laboratory Job ID: 180-121462-1

Client Project/Site: Available Cyanide 21051022

For:

Element Materials Technology
328 Ley Rd
Suite100
Fort Wayne, Indiana 46825

Attn: Kris Kwasny



Authorized for release by:
5/20/2021 8:16:53 AM

Andy Johnson, Manager of Project Management
(615)301-5045

Andy.Johnson@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Case Narrative

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Job ID: 180-121462-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-121462-1

Comments

No additional comments.

Receipt

The sample was received on 5/12/2021 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21 *
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21 *
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21 *
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21 *
Texas	NELAP	T104704528	03-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-121462-1	21051022-001A	Water	05/10/21 08:40	05/12/21 10:00	

1

2

3

4

5

6

7

8

9

10

11

12

13

Method Summary

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Method	Method Description	Protocol	Laboratory
OIA - 1677	Available Cyanide by Flow Injection, Lig	EPA	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Client Sample ID: 21051022-001A
Date Collected: 05/10/21 08:40
Date Received: 05/12/21 10:00

Lab Sample ID: 180-121462-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OIA - 1677		1			357264	05/17/21 20:26	GRB	TAL PIT
Instrument ID: ALPKEM3										

Laboratory References:
TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:
Lab: TAL PIT
Batch Type: Analysis
GRB = Gabriel Berghe

Client Sample Results

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Client Sample ID: 21051022-001A

Lab Sample ID: 180-121462-1

Date Collected: 05/10/21 08:40

Matrix: Water

Date Received: 05/12/21 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Available	0.13		0.0020	0.0015	mg/L			05/17/21 20:26	1

QC Sample Results

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

Method: OIA - 1677 - Available Cyanide by Flow Injection, Lig

Lab Sample ID: MB 180-357264/81

Matrix: Water

Analysis Batch: 357264

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Available	ND		0.0020	0.0015	mg/L			05/17/21 19:51	1

Lab Sample ID: LCS 180-357264/80

Matrix: Water

Analysis Batch: 357264

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Available	0.0501	0.0516		mg/L		103	82 - 132

QC Association Summary

Client: Element Materials Technology
Project/Site: Available Cyanide 21051022

Job ID: 180-121462-1

General Chemistry

Analysis Batch: 357264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-121462-1	21051022-001A	Total/NA	Water	OIA - 1677	
MB 180-357264/81	Method Blank	Total/NA	Water	OIA - 1677	
LCS 180-357264/80	Lab Control Sample	Total/NA	Water	OIA - 1677	



CHAIN OF CUSTODY RECORD

Omega COCID 136241

PAGE: 1

OF: 1

ADDRESS

Element Materials Technology - Fort Wayne
328 Ley Rd.
Fort Wayne, IN 46825
TEL: (260) 424-1622
FAX: (260) 424-9124
Website: www.element.com

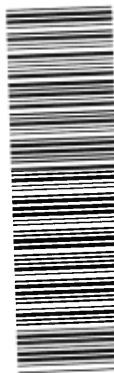
SUB CONTRACTOR: TEST_AMERICA		COMPANY: Test America					
ADDRESS: Sample Receiving							
CITY, STATE, ZIP: Nashville, TN 37204							
PHONE: (800) 765-0980		FAX: (615) 726-3404					
ACCOUNT #:							
ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description.
1	21051022-001A	S-901 Grab	500HDPENAOH	Wastewater	5/10/2021 8:40:00 AM	1	
CYAN_1677 (OIA-1677-09)							

SPECIAL INSTRUCTIONS / COMMENTS:

Due 5/18.21

PQ# EFWD044401

RUSH!



180-121462 Chain of Custody

77306-9592-4047

Relinquished By: Test America		Received By: Test America	
Date: 5/11/21	Date: 5/12/21	Time: 16:30	
Time: 16:30	Time: 16:30	Time: 16:30	
Date: 5/11/21	Date: 5/12/21	Date: 5/12/21	
Time: 16:30	Time: 16:30	Time: 16:30	
TAT: Standard <input type="checkbox"/>		RUSH <input type="checkbox"/>	
Next BD <input type="checkbox"/>		2nd BD <input type="checkbox"/>	
3rd BD <input type="checkbox"/>		Note: RUSH requests will incur surcharges!	
Page 17 of 31			

REPORT TRANSMITTAL DESIRED:

☐ HARDCOPY (extra cost)☐ FAX☐ EMAIL☐ ONLINE

FOR LAB USE ONLY

Temp of samples _____ °C

Attempt to Cool? _____

Comments: _____



180-121462 Waybill

Manager - Print Your Label(s)

<https://www.fedex.com/shipping/shipAction.handle?method=doContinue>

1201120121801W

Part # 156295-435 RRDW2 EXP 03/22
1/3

PT-WI-SR-001 effective 11/8/18
Initials CF
Thermometer ID 14
Uncorrected temp 3.5
NA AGCA
7736 9592 4047
15238
PIT
PRIORITY OVERNIGHT
WED - 12 MAY 10:30A



SHIP DATE 11MAY21
ACTWGT 6.60 LB
CMT 113021530MFE74340
ORIGIN ID FENMA
SHIP TO RECEIVING DEPT
EXOVA
TRIPLY RD SUITE 160
FORT MYERS, FL 33905
EUROFINS-PITTSBURGH
EUROFINS-PITTSBURGH
301 ALPHA DRIVE RIDC PARK
PITTSBURGH PA 15238
RET 050414
(260) 471-7000

FedEx Ship Manager - Print Your Label(s)

5/11/2021

Login Sample Receipt Checklist

Client: Element Materials Technology

Job Number: 180-121462-1

Login Number: 121462

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

May 26, 2021

Kristine Kwasny
Element Material Technology-Fort Wayne
2121 E. Washington Blvd.
Fort Wayne, IN 46803
TEL: 260-471-7000
FAX: 260-471-7777

RE: 21051022 -REVISED

Dear Kristine Kwasny:

Order No.: 21050646

Summit Environmental Technologies, Inc. received 1 sample(s) on 5/12/2021 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Jennifer Woolf

Project Manager

3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 011, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Case Narrative

WO#: 21050646
Date: 5/26/2021

CLIENT: Element Material Technology-Fort Wayne
Project: 21051022 -REVISED

WorkOrder Narrative:

21050646: This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

WorkOrder Comments:

21050646: State required accreditation not specified; results may not be reported as certified data.

Analytical Sequence Sample Notes:

21050646-001A SVOC-MSTR_NPW(625.1): Surrogate outside recovery limits. Minimum method criterion of one surrogate within established recovery limits was met.

Analytical Sequence QC Notes:

MB-49469 SVOC-MSTR_NPW(625.1): Surrogate outside recovery limits. Minimum method criterion

Revision v3

Page 21 of 31



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Case Narrative

WO#: 21050646
Date: 5/26/2021

CLIENT: Element Material Technology-Fort Wayne
Project: 21051022 -REVISED

of one surrogate within established recovery limits was met.

REVISED REPORT 5/20/21: MDL included.
REVISED REPORT II 5/26/21 : Corrected PQLs

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected above the MDL.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded. Not Clean Water Act compliant.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B	The analyte was detected in the Method Blank at a concentration greater than the RL.
MB+	The analyte was detected in the Method Blank at a concentration greater than the MDL.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
W	Samples were received outside temperature limits (0° – 6° C). Not Clean Water Act compliant.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	RL	Reporting Limit
QC	Quality Control	MDL	Method Detection Limit
MB	Method Blank	LOD	Level of Detection
LCS	Laboratory Control Sample	LOQ	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	PQL	Practical Quantitation Limit
QCS	Quality Control Sample	CRQL	Contract Required Quantitation Limit
DUP	Duplicate	PL	Permit Limit
MS	Matrix Spike	RegLvl	Regulatory Limit
MSD	Matrix Spike Duplicate	MCL	Maximum Contamination Limit
RPD	Relative Percent Different	MinCL	Minimum Compound Limit
ICV	Initial Calibration Verification	RA	Reanalysis
ICB	Initial Calibration Blank	RE	Reextraction
CCV	Continuing Calibration Verification	TIC	Tentatively Identified Compound
CCB	Continuing Calibration Blank	RT	Retention Time
RLC	Reporting Limit Check	CF	Calibration Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Workorder Sample Summary

WO#: 21050646

26-May-21

CLIENT: Element Material Technology-Fort Wayne

Project: 21051022 -REVISED

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
21050646-001	21051022-001C		5/10/2021 8:40:00 AM	5/12/2021 10:55:00 AM	Non-Potable Water



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DATES REPORT

WO#: 21050646

26-May-21

Client: Element Material Technology-Fort Wayne

Project: 21051022 -REVISED

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
21050646-001A	21051022-001C	5/10/2021 8:40:00 AM	Non-Potable Water	Semi-Volatile Org. Compounds by GC. (EPA 625.1)		5/12/2021 2:00:00 PM	5/14/2021 5:37:00 PM

Revision v3



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Cuyahoga Falls, Ohio 44223
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Analytical Report

(consolidated)

WO#: **21050646**

Date Reported: **5/26/2021**

Lab ID: 21050646-001

Collection Date: 5/10/2021 8:40:00 AM

Client Sample ID 21051022-001C

Matrix: NON-POTABLE WATER

Analysis	Result	MDL	PQL	Qual	Units	Dilution	Batch	Date Analyzed
SEMI-VOLATILE ORG. COMPOUNDS BY GC/MS (EPA 625.1)					EPA 625.1		Analyst: SFG	
n-Decane	ND	0.0510	0.204	U	mg/L	50	49469	5/14/2021 5:37:00 PM
n-Octadecane	ND	0.0510	0.204	U	mg/L	50	49469	5/14/2021 5:37:00 PM
Bis(2-ethylhexyl) phthalate	ND	0.139	0.816	U	mg/L	50	49469	5/14/2021 5:37:00 PM
Fluoranthene	ND	0.114	0.510	U	mg/L	50	49469	5/14/2021 5:37:00 PM
Phenanthrene	ND	0.0884	0.510	U	mg/L	50	49469	5/14/2021 5:37:00 PM
Carbazole	ND	0.107	0.510	U	mg/L	50	49469	5/14/2021 5:37:00 PM
Surr: 2-Fluorophenol	0		10-140	Sd	%Rec	50	49469	5/14/2021 5:37:00 PM
Surr: Phenol-d6	0		10-140	Sd	%Rec	50	49469	5/14/2021 5:37:00 PM
Surr: Nitrobenzene-d5	0		15-314	Sd	%Rec	50	49469	5/14/2021 5:37:00 PM
Surr: 2,4,6-Tribromophenol	81.0		10-185		%Rec	50	49469	5/14/2021 5:37:00 PM
Surr: 2-Fluorobiphenyl	0		25.4-158	Sd	%Rec	50	49469	5/14/2021 5:37:00 PM
Surr: p-Terphenyl-d14	56.0		33.5-191		%Rec	50	49469	5/14/2021 5:37:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area response
	MC	Value is below Minimum Compound Limit.	N	Tentatively identified compounds
	ND	Not Detected	P	Second column confirmation exceeds
	PL	Permit Limit	R	RPD outside accepted recovery limits
				Page 26 of 31



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QC SUMMARY REPORT

WO#: 21050646

26-May-21

Client: Element Material Technology-Fort Wayne

Project: 21051022 -REVISED

BatchID: 49469

Sample ID: MB-49469	SampType: MBLK	TestCode: SVOC-MSTR	Units: mg/L	Prep Date: 5/12/2021	RunNo: 127876						
Client ID: PBW	Batch ID: 49469	TestNo: E625	SW3510C	Analysis Date: 5/14/2021	SeqNo: 3346908						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl) phthalate	ND	0.0100									U
Fluoranthene	ND	0.00500									U
Phenanthrene	ND	0.00500									U
Surr: 2-Fluorophenol	0.0250		0.05000		50.0	60	140				S
Surr: Phenol-d6	0.0193		0.05000		38.6	8	424				
Surr: Nitrobenzene-d5	0.0389		0.05000		77.7	46	219				
Surr: 2,4,6-Tribromophenol	0.0420		0.05000		84.0	60	140				
Surr: 2-Fluorobiphenyl	0.0376		0.05000		75.1	60	140				
Surr: p-Terphenyl-d14	0.0536		0.05000		107	60	140				

Sample ID: LCS-49469	SampType: LCS	TestCode: SVOC-MSTR	Units: mg/L	Prep Date: 5/12/2021	RunNo: 127876						
Client ID: LCSW	Batch ID: 49469	TestNo: E625	SW3510C	Analysis Date: 5/14/2021	SeqNo: 3346909						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl) phthalate	0.0376	0.0100	0.04000	0	93.9	29	137				
Fluoranthene	0.0371	0.00500	0.04000	0	92.6	43	121				
Phenanthrene	0.0408	0.00500	0.04000	0	102	65	120				
Surr: 2-Fluorophenol	0.0282		0.05000		56.5	10	113				
Surr: Phenol-d6	0.0213		0.05000		42.6	10	77.6				
Surr: Nitrobenzene-d5	0.0419		0.05000		83.7	15	314				
Surr: 2,4,6-Tribromophenol	0.0588		0.05000		118	10	251				
Surr: 2-Fluorobiphenyl	0.0424		0.05000		84.7	44	95.9				

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analy
	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	MC	Value is below Minimum Compound
	ND	Not Detected	P	Second column confirmation exceeds	PL	Permit Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted reco

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Revision v3



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QC SUMMARY REPORT

WO#: 21050646

26-May-21

Client: Element Material Technology-Fort Wayne

Project: 21051022 -REVISED

BatchID: 49469

Sample ID: LCS-49469	SampType: LCS	TestCode: SVOC-MSTR	Units: mg/L	Prep Date: 5/12/2021	RunNo: 127876						
Client ID: LCSW	Batch ID: 49469	TestNo: E625	SW3510C	Analysis Date: 5/14/2021	SeqNo: 3346909						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: p-Terphenyl-d14	0.0601		0.05000		120	58.6	178				

Sample ID: LCSD-49469	SampType: LCSD	TestCode: SVOC-MSTR	Units: mg/L	Prep Date: 5/12/2021	RunNo: 127876						
Client ID: LCSS02	Batch ID: 49469	TestNo: E625	SW3510C	Analysis Date: 5/14/2021	SeqNo: 3346910						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl) phthalate	0.0328	0.0100	0.04000	0	81.9	29	137	0.03756	13.7	82	
Fluoranthene	0.0331	0.00500	0.04000	0	82.7	43	121	0.03706	11.3	66	
Phenanthrene	0.0365	0.00500	0.04000	0	91.4	65	120	0.04076	10.9	39	
Surr: 2-Fluorophenol	0.0265		0.05000		52.9	10	113		0	0	
Surr: Phenol-d6	0.0206		0.05000		41.2	10	77.6		0	0	
Surr: Nitrobenzene-d5	0.0394		0.05000		78.8	15	314		0	0	
Surr: 2,4,6-Tribromophenol	0.0508		0.05000		102	10	251		0	0	
Surr: 2-Fluorobiphenyl	0.0404		0.05000		80.9	44	95.9		0	0	
Surr: p-Terphenyl-d14	0.0532		0.05000		106	58.6	178		0	0	

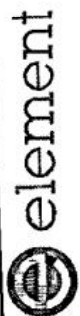
Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected below quantitation limits
ND Not Detected
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
P Second column confirmation exceeds
RL Reporting Detection Limit

H Holding times for preparation or analy
MC Value is below Minimum Compound
PL Permit Limit
S Spike Recovery outside accepted reco

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Revision v3



CHAIN OF CUSTODY RECORD

Omega COCID 136240

PAGE: 1 OF 1

ADDRESS
Element Materials Technology - Fort
Wayne
328 Ley Rd.
Fort Wayne, IN 46825
TEL: (260) 424-1622
FAX: (260) 424-9124
Website: www.element.com

21050646

SUB CONTRACTOR SET		COMPANY		Summit Environmental Technol		SPECIAL INSTRUCTIONS / COMMENTS	
ADDRESS		3310 Win Street				Please only report these compounds: Phenanthrene, Bis (2-Eth) Phthalate, Carbazole, Fluoranthene, n-Decane, n-Octadecane	
CITY, STATE, ZIP		Cuyahoga Falls, OH 44223					
PHONE: (330) 253-8211		FAX: (330) 253-4489		EMAIL:			
ACCOUNT #		NELAP E87688					
ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Method Preserved Weights HOT Sample Notation, Additional Sample Description.
1	21051022-001C	S-901 Grab	1L GU	Wastewater	5/10/2021 8:40:00 AM	1	
625_SPECIAL (E625), 625_W (E625)							

PD# EFW044402 Due: 5/18/21

RUSH!

7736.9611.1795

Requested By: J. K. W. 5/11/21		Received By: J. K. W. 5/12/2021		Date: 5/12/2021		Time: 10:00	
Relinquished By:		Relinquished By:		Date:		Time:	
Relinquished By:		Relinquished By:		Date:		Time:	
TAT: Standard <input type="checkbox"/>		RUSH <input checked="" type="checkbox"/>		Next BD <input type="checkbox"/>		2nd BD <input type="checkbox"/>	
Temp of samples 32.0.8		Temp of samples 32.0.8		Temp of samples 32.0.8		Temp of samples 32.0.8	
Comments: 2.4		Comments: 2.4		Comments: 2.4		Comments: 2.4	
FOR LAB USE ONLY		FOR LAB USE ONLY		FOR LAB USE ONLY		FOR LAB USE ONLY	
Temp of samples 32.0.8		Temp of samples 32.0.8		Temp of samples 32.0.8		Temp of samples 32.0.8	
Comments: 2.4		Comments: 2.4		Comments: 2.4		Comments: 2.4	
Report Transmittal Desired		Report Transmittal Desired		Report Transmittal Desired		Report Transmittal Desired	
<input type="checkbox"/> Hardcopy (extra cost)		<input type="checkbox"/> FAX		<input type="checkbox"/> EMAIL		<input type="checkbox"/> ONLINE	



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Sample Log-In Check List

Client Name: **SHE-IN-46803**

Work Order Number: **21050646**

RcptNo: **1**

Logged by: **Jessica E. Westfall** **5/12/2021 10:55:00 AM**

Jessica E. Westfall

Completed By: **Jessica E. Westfall** **5/12/2021 12:31:57 PM**

Jessica E. Westfall

Reviewed By: **Jennifer Woolf** **5/12/2021 1:31:57 PM**

Jennifer Woolf

Chain of Custody

1. Is Chain of Custody complete? Yes ☐ No ☒ Not Present ☐
2. How was the sample delivered? FedEx

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

Special Handling (if applicable)

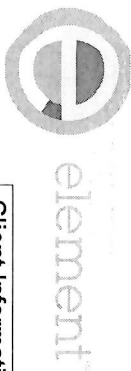
17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:
project address not included

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Not Present			



Chain of Custody M101

Laboratory Number: 21051022

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 1 of 1	
Company Name: East Chicago Sanitary District		Same				S-901		Matrix Code	
Contact Name: Henry Padilla				Quote Number:		Sampler's Signature		DW = Drinking Water	
Address: 5201 Indianapolis Blvd				Required QC Level		Shipping Method: <i>Hand</i>		WW = Waste Water	
City, State Zip: East Chicago IN 46312				Bill Monthly		UPS / FedEx		GW = Ground Water	
Phone Number: 219-391-8466		Ext: 240		<input type="checkbox"/> Yes		Element / Hand / Mail		AQ = Aqueous	
Fax Number:				<input type="checkbox"/> No				OT = Other	
E-mail Address: hpadilla@eastchicago.com								SL = Sludge	
								O = Oil	
								F = Food	
								NG = Natural Gas	
								NGL = Natural Gas Liquid	
								PW = Produced Water	
								CF = Completion Fluid	

Which Regulations Apply:				Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container	Pres.	Requested Tests								Comments	
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	5 TAT				Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	CYANIDE 1677	Oil & Grease T&SI	**SVOC list	*Metals	NH ₃ , T.PHOS, COD	PHENOL	300: Fluoride	TSS	
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution																
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special																
<input type="checkbox"/> USDA/FDA	<input type="checkbox"/> State																
<input type="checkbox"/> RECAP/RIISC	<input type="checkbox"/> Other																
Sample ID/Description		Collection Information			Matrix	Quantity	Type P=Plastic, G=Glass, V=Vial	Pres.	CYANIDE 1677	Oil & Grease T&SI	**SVOC list	*Metals	NH ₃ , T.PHOS, COD	PHENOL	300: Fluoride	TSS	
		Date	Time	Grab / Composite													
S-901 Grab		5-10-21	8:40	Grab	WW	1	P	NAOH	X								
S-901 Grab				Grab	WW	1	G	H2SO4		X							
S-901 Grab				Grab	WW	1	G	NONE			X						
S-901 Composite				Comp	WW	1	P	HNO3				X					
S-901 Composite				Comp	WW	1	P	H2SO4					X				
S-901 Composite				Comp	WW	1	G	H2SO4						X			
S-901 Composite				Comp	WW	2	P	NONE							X	X	
*As, Cr, Cu, Pb, Mo, Ni, Zn, & Hg, Extra: Co, Sn																	
**Catzazole, n-Decane, Fluoranthene, n-Octadecane, Phenanthrene, Bis(2EH) Phthalate																	

Relinquished by	Date/Time	Received by	Date/Time	Composite Sampler
<i>W. L. L...</i>	5-11-21 / 1530	<i>S. J. B. - Nac</i>	5-11-21 / 1030	Start Date/Time: 5-10-21 8:40
<i>S. J. B.</i>	5-11-21 / 1530	<i>S. J. B. - Nac</i>	5-11-21 / 1530	End Date/Time: 5-11-21 7:58
3				Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 6

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

8800 North US 31
Columbus, IN 47201 USA
P 812-375-0531
F 812-375-0731

328 Ley Road, Suite 100
Fort Wayne, IN 46825 USA
P 260-471-7000
F 260-471-7777

909 Executive Dr.
Warsaw, IN 46580 USA
P 574-267-3305
F 574-269-6569

3371 Cleveland Road, Suite 100A
South Bend, IN 46628-9780 USA
P 574-277-0707

2417 W. Pinhook Rd
Lafayette, LA 70508-3344 USA
P 337-235-0483
F 337-233-6540